CLAIMS

1. A method for inspecting a glass panel for a cathode-ray tube, the glass panel for a cathode-ray tube including a substantially rectangular face portion and a skirt portion attached consecutively in a substantially perpendicular manner to a peripheral edge of the face portion, the method comprising the step of detecting a size and a depth of an internal defect in the face portion using ultrasonic waves.

2. The method for inspecting a glass panel for a cathode-ray tube according to claim 1, wherein

ultrasonic waves are emitted from any one of the inner and outer surfaces of the face portion toward the other surface and a reflected wave reflected on the other surface and an internal defect is received, thereby detecting the size of the internal defect and the distance of the internal defect from the other surface.

3. The method for inspecting a glass panel for a cathode-ray tube according to claim 2, wherein

ultrasonic waves are emitted from the outer surface side of the face portion toward the inner surface side and a reflected wave reflected on the inner surface and an internal defect is received, thereby detecting the size of the internal defect and the distance of the internal defect

from the inner surface.

4. The method for inspecting a glass panel for a cathode-ray tube according to claim 3, wherein

ultrasonic waves are allowed to propagate through a non-compressive fluid as a medium outside the face portion upon transmission and reception of the ultrasonic waves.

5. The method for inspecting a glass panel for a cathode-ray tube according to claim 4, wherein

the non-compressive fluid is a cylindrical flowing fluid that covers a path for transmission and reception of the ultrasonic waves and has a fluid channel area smaller than the inner and outer surfaces of the face portion.

6. The method for inspecting a glass panel for a cathode-ray tube according to claim 4, wherein

an ultrasonic flaw detector for transmitting and receiving the ultrasonic waves and the glass panel are soaked in the non-compressive fluid.

7. The method for inspecting a glass panel for a cathode-ray tube according to claim 5, wherein

the ultrasonic flaw detector for transmitting and receiving ultrasonic waves is configured to move relative to the glass panel.

8. The method for inspecting a glass panel for a cathode-ray tube according to claim 6, wherein

the ultrasonic flaw detector for transmitting and

receiving ultrasonic waves is configured to move relative to the glass panel.

9. The method for inspecting a glass panel for a cathode-ray tube according to claim 4, wherein

the glass panel is a glass panel used for a projection cathode-ray tube.

10. An apparatus for inspecting a glass panel for a cathode-ray tube, the glass panel for a cathode-ray tube including a substantially rectangular face portion and a skirt portion attached consecutively in a substantially perpendicular manner to a peripheral edge of the face portion, the apparatus comprising an ultrasonic flaw detector for detecting a size and a depth of an internal defect in the face portion using ultrasonic waves.

11. The apparatus for inspecting a glass panel for a cathode-ray tube according to claim 10, wherein

the apparatus is configured to allow a cylindrical non-compressive fluid to flow down onto the outer surface or the inner surface of the face portion from an ultrasonic flaw detector probe when ultrasonic waves are transmitted from or received at the ultrasonic flaw detector probe of the ultrasonic flaw detector.

12. The apparatus for inspecting a glass panel for a cathode-ray tube according to claim 11, wherein

the ultrasonic flaw detector probe of the ultrasonic

flaw detector and the glass panel to be inspected are soaked into the non-compressive fluid.

13. A cathode-ray tube glass panel being a cathode-ray tube component and comprising a substantially rectangular face portion and a skirt portion attached consecutively in a substantially perpendicular manner to a peripheral edge of the face portion, wherein a defect of 0.15 mm or more in diameter or maximum length does not exist within an area of 5 mm from the inner surface of the face portion.